UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.   : 7,167,486 B2
APPLICATION NO. : 09/766027
DATED   : January 23, 2007
INVENTOR(S)   : David Cornelius and Edwin Basart

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

[Handwritten: Delete the title page and substitute therefore the attached title page showing the corrected number of claims in the patent:]
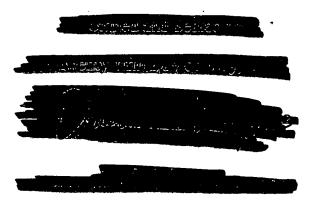
Column 20, line 35, add the following text:

13. The method of claim 1 wherein each media stream is comprised of a plurality of packets.

14. The method of claim 1 wherein the first unique identifier is a source port number of the first media stream.

15. The method of claim 1 wherein the first unique identifier is the source IP address of the first media stream.

16. The method of claim 1 wherein the first unique identifier is further comprised of a source port number and the source IP address of the first media stream.

17. The method of claim 7 wherein the first unique identifier is a source port number of the first media stream.

18. The method of claim 7 wherein the first unique identifier is the source IP address of the first media stream.

19. The method of claim 7 wherein the first unique identifier is comprised of a source port number and the nsource IP address of the first media stream.

[Handwritten note: This certificate supersedes Certificate of Correction issued May 25, 2010.]

US007167486B2

(12) United States Patent
Cornelius et al.

(10) Patent No.: **US 7,167,486 B2**
(45) Date of Patent: **Jan. 23, 2007**

(54) **VOICE TRAFFIC THROUGH A FIREWALL**

(75) Inventors: **David Cornelius**, Saratoga, CA (US); **Edwin J. Basart**, Los Altos, CA (US)

(73) Assignee: **Shoretel, Inc.**, Sunnyvale, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 726 days.

(21) Appl. No.: **09/766,027**

(22) Filed: **Jan. 19, 2001**

(65) **Prior Publication Data**

US 2003/0165136 A1 Sep. 4, 2003

(51) **Int. Cl.**
H04J 4/16 (2006.01)

(52) **U.S. Cl.** **370/467**

(58) **Field of Classification Search** 370/401, 370/466, 352, 260, 261, 355, 228, 351; 345/419; 711/4
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,134,235 A	*	10/2000	Goldman et al.	370/352
6,470,020 B1	*	10/2002	Barker et al.	370/401
6,697,377 B1	*	2/2004	Ju et al.	370/466
6,760,309 B1	*	7/2004	Rochberger et al.	370/235
6,804,254 B1	*	10/2004	Pearce et al.	370/467
6,826,176 B1	*	11/2004	Siddiqui et al.	370/352
6,922,786 B1	*	7/2005	Ong	704/270

OTHER PUBLICATIONS

Douglas Comer, Internetworking with TCP/IP Principles, Protocols, and Architectures, Prentice Hall, Published 1995, 4th Edition, pp. 97-99, 197-206, 221-222, & 542-549.*

Douglas E. Comer, Internetworking with TCP/IP Principles, Protocols, and Architecture, Fourth Edition, Prentice Hall, dated 1995, pp. 197-202 7 209-222.*

Douglas E. Comer, Internetworking with TCP/IP Principles, Protocols, and Architectures, Fourth Edition, Prentice Hall, dated 1995, pp. 197-202 & 209-222.*

IETF, Request for Comments (RFC) 2543: "Session Initiation Protocol" (SIP) (Mar. 1999).

* cited by examiner

Primary Examiner—Doris H. To
Assistant Examiner—Robert W. Wilson
(74) *Attorney, Agent, or Firm*—Silicon Valley Patent Group LLP

(57) **ABSTRACT**

The number of holes that are opened in a firewall for internet telephony is limited to a first hole used for call control and a second hole used for audio traffic. Fixed destination ports for telephony traffic and call control traffics are created at a destination. Media streams are received at the telephony fixed destination port. The source of each media stream is commanded to provide a unique identifier for each media stream arriving at the destination from each source. Each media stream is identified by a unique identifier provided by the source. The unique identifier for each media stream is communicated to the destination by each source over call control. All telephony traffic is received only at the fixed destination port or telephony and all call control is received only at the fix destination port for call control.

19 Claims, 11 Drawing Sheets